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CLAIMS

What is claimed is:

1. A method performed by one or more components in a network comprising a plurality of paths between a first device and a second device, the method comprising:

conducting a first performance test of a first type over a first path of the plurality of paths between the first and second devices;

conducting a second performance test of the first type over a second path of the plurality of paths between the first and second devices;

wherein the first and the second performance tests are performed simultaneously or within a close time proximity.

2. The method of claim 1, wherein the first performance test produces a first set of results;

wherein the second performance test produces a second set of results; and further comprising presenting a service level performance comparison based on the first and second sets of results.

- 3. The method of claim 2, wherein the first performance test includes a plurality of first individual performance tests performed over an extended time duration; and the second performance test includes a plurality of second individual performance tests performed over the extended time duration.
- 4. The method of claim 3, wherein each of the pluralities of first and second individual performance tests are performed at roughly periodic intervals over the extended time duration.
 - 5. The method of claim 1, wherein the first path transverses a first access network, a first transport network, and a second access network; and the second path transverses the first access network, a second transport network, and the second access network.

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- 6. The method of claim 1, further comprising receiving a scheduling request representing the first and second performance tests.
- 7. The method of claim 6, wherein the scheduling request is received by a scheduling system; and the scheduling system communicates a first indication of the request to the first device.
- 8. The method of claim 7, wherein the scheduling system further communicated a second indication of the request to the second device.
- 9. The method of claim 6, further comprising scheduling the first and second performance tests based on the scheduling request and a random time component.
- 10 10. The method of claim 6, further comprising determining whether the scheduling request is authorized.
 - 11. The method of claim 10, further comprising indicating that the scheduling request is not authorized.
 - 12. The method of claim 6, further comprising determining whether the scheduling request conflicts with a second scheduling request.
 - 13. The method of claim 6, further comprising determining whether a number of scheduled tests exceeds a first threshold number for the first device or exceeds a second threshold number for the second device.
- 14. The method of claim 13, further comprising indicating a failed scheduling20 request.
 - 15. A computer-readable medium containing computer-executable instructions for performing the method of claim 1.

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16. A network comprising:

a plurality of paths between a first device and a second device;

means for conducting a first performance test of a first type over a first path of the plurality of paths between the first and second devices;

means for conducting a second performance test of the first type over a second path of the plurality of paths between the first and second devices;

wherein the first and the second performance tests are performed simultaneously or within a close time proximity.

17. The network of claim 16, wherein said means for conducting the first performance test includes means for generating a first set of results;

wherein said means for conducting the second performance test includes means for generating a second set of results; and

further comprising means for presenting a service level performance comparison based on the first and second sets of results.

- 18. The network of claim 16, wherein the first path transverses a first access network, a first transport network, and a second access network; and the second path transverses the first access network, a second transport network, and the second access network.
- 19. The network of claim 16, further comprising means for receiving a scheduling request representing the first and second performance tests.
 - 20. The network of claim 19, further comprising means for scheduling the first and second performance tests based on the scheduling request and a random time component.

21. A network comprising:

- a first device coupled to a first access network;
- a first access network coupled to a first and a second transport networks;
- a second access network coupled to the first and the second transport networks;

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a second device coupled to the second access network;

wherein a performance test is conducted between the first device and the second device over each of the first and second transport networks simultaneously or within a close time proximity.

- 22. The network of claim 21, wherein the first device is coupled to a first router, wherein the first router selectively routes performance testing packets received from the first device over a first path to the first transport network and a second path to the second transport network.
 - 23. The network of claim 21, further comprising a performance test scheduler.
- 24. The network of claim 23, further comprising a client device, wherein the client device transmits one or more scheduling requests for the performance test.
- 25. The network of claim 24, further comprising a results collector for receiving a set of results associated with the performance test.
- 26. The network of claim 25, wherein the results collector transmits at least a subset of the set of results to the client device.
 - 27. The network of claim 23, wherein the performance test scheduler communicates a scheduling instruction associated with the performance test to the first device.

- 28. The network of claim 27, wherein the performance test scheduler communicates a second scheduling instruction associated with the performance test to the second device.
- 29. The network of claim 28, wherein the second device includes a test mode; and
 wherein the second device enters the test mode in response to receiving the second scheduling instruction.